CLAIMS

1. A ventilating device (60) adapted to be fixed on a transverse end face (44, 46) of an axial end of a rotor of a rotary electrical machine, of the type comprising:

- a first fan (62a) comprising a transversely oriented central plate portion (64a), from which first blades (68a) extend radially outwards;

- at least one second fan (62b) comprising a second transversely oriented central plate portion (64b), from which second blades (68b) extend radially outwards; and

- means for fastening the two fans (62a, 62b),

wherein each fan (62a, 62b) has, extending radially outwards from its outer periphery, first branches (78a) and second branches (78b) respectively, and wherein at least some of the said branches carry a blade,

characterised in that at least one first branch (78a) and at least one second branch (78b) include a first mutual overlapping portion (78a) and a second mutual overlapping portion (78b), to define an overlap zone (Z), and in that the said fastening means (80, 82) of the two fans are arranged at least partly in the region of the said overlap zone (Z).

2. A device according to Claim 1, characterised in that the said fastening means of the two fans include at least one fastening point (80, 82) for fastening the said overlapping portions (78a, 78b, Z) of the two branches (78a, 78b) together.

3. A device according to Claim 2, characterised in that the said fastening means of the two fans comprise at least two fastening points (80, 82) for fastening the said overlapping portions (78a, 78b, Z) of the two branches together.

4. A device according to Claim 3, characterised in that the two fastening points (80, 82) are arranged in the vicinity of the opposed ends of the two overlapping portions of the two branches.

5. A device according to Claim 3, characterised in that the two fastening points (80, 82) are offset circumferentially and radially from each other.

6. A device according to Claim 3, characterised in that one of the fans (62a, 62b) is so configured that it has fastening points (76) which are adapted to be fixed on the rotor of the rotary electrical machine, and in that the said fastening points (76) are of greater size than the fastening points (80, 82) fastening the two fans (62a, 62b) together.

7. A device according to Claim 2, characterised in that balancing means are located in the region of the fastening point (80, 82) by which the said overlapping portions (78a, 78b) are fastened together.

8. A device according to Claim 1, characterised in that the said first and second mutual overlapping portions of the branches (78a, 78b, Z) are flat portions which lie in parallel transverse planes.

9. A device according to Claim 8, characterised in that each of the said transverse, flat, mutual overlapping portions of the branches (78a, 78b, Z) lies in the same plane as the central plate portion (64a, 64b) from which the corresponding blade (68a, 68b) extends.

10. A device according to Claim 1, characterised in that one (62b) of the fans (62a, 62b) consists of a plurality of members fixed on the other fan (62a) by the fastening means (80, 82) fastening the two fans together.

11. A device according to Claim 1, characterised in that at least one of the blades of one of the fans is carried by a branch having an overlapping portion (Z) which overlaps an overlapping portion of a branch that carries a blade of the other fan, and in that the said fastening means (80, 82) fastening the two fans together are arranged at least partly in the region of all of the said overlapping portions of the branches.

12. A device according to Claim 1, characterised in that a circumferential indexing means (72a, 74a, 72b, 74b) is interposed between the first and second

radial plate portions (64a, 64b), for circumferentially positioning the first blades with respect to the second blades, and in that the first and second radial plate portions (64a, 64b) are superimposed on each other.

13. A device according to Claim 1, characterised in that a thermal insulating means is interposed between the first mutual overlapping portion (78a) and the second mutual overlapping portion (78b).